

We claim:

1 *sub A* 1. A method for visually configuring a product by placing a plurality of  
2 selectable components into a plurality of slots, comprising:

3 (a) initializing a configuration layout with proper state;  
4 (b) receiving a selection of one of the plurality of selectable objects, and of one of  
5 the plurality of slots in which the selected object may be placed;  
6 (c) providing visual feedback indicating a validity of the selections;  
7 (d) receiving a placement of the selected object;  
8 (e) receiving input regarding the placement from a remote inference engine;  
9 (f) updating the visual feedback as needed based on the received input; and  
10 (g) repeating steps (b) through (f) until no more selections are received.

1 2. A method for visually configuring a product by placing a plurality of  
2 selectable components into a plurality of slots, comprising:

3 (a) initializing a configuration layout with proper state;  
4 (b) receiving a selection of one of the plurality of selectable objects, and of one of  
5 the plurality of slots in which the selected object may be placed;  
6 (c) looking up a set of constraints on the placement of the selected object;  
7 (d) receiving a placement of the selected object;  
8 (e) receiving input regarding the placement from a remote inference engine;  
9 (f) implementing the received input;  
10 (g) storing a new set of constraints based on the placement of the selected

11 object; and

12 (h) repeating steps (b) through (g) until no more selections are received.

1 3. The method of claim 2, further comprising:

2 transmitting information regarding the placement of the object to the inference  
3 engine.

1 4. The method of claim 2, wherein the step of looking up constraints  
2 comprises looking up a forward-looking rules table.

1 5. The method of claim 4, wherein the step of storing a new set of constraints  
2 comprises storing a new forward-looking rules table.

1 6. The method of claim 2, wherein the input is received from an inference  
2 engine.

1 7. The method of claim 2, wherein the selection of one of the plurality of  
2 selectable objects, and of a slot in which the selected object may be placed, is received  
3 via a user interface.

1 8. The method of claim 2, wherein the received input is implemented in a  
2 user interface.

1 9. A system for visually configuring a product from a plurality of selectable  
2 components, comprising:

3 a user interface for displaying the plurality of selectable components and a  
4 plurality of slots into which the plurality of selectable components can be  
5 placed; and  
6 a user intelligence communicatively coupled to the user interface, for receiving a  
7 set of constraints from a remote inference engine and implementing the set  
8 of constraints.

1 10. The system of claim 9, wherein the visual user interface comprises:  
2 donors depicting the plurality of selectable components;  
3 receptors depicting the plurality of slots into which the donors can be placed;  
4 a graphical manipulation enabler for implementing drag and drop behavior of the  
5 donors into the receptors; and  
6 a configuration conflicts display, for updating a visual display responsive to at  
7 least one of the plurality of donors being put into at least one of the  
8 plurality of slots such that at least one constraint stored on the user  
9 intelligence is violated.

1 11. The system of claim 9, wherein the user intelligence comprises:  
2 an interpreter for receiving a set of constraints from an inference engine;  
3 a storage for storing the set of constraints;  
4 an implementor for implementing the forward-looking rules stored in the table;  
5 and  
6 an encoder for encoding and sending data regarding a user's current selection

7 from the plurality of donors and the plurality of receptors to the inference  
8 engine.

1 12. A system for visually configuring a product from a plurality of selectable  
2 components, comprising:

3 on a client device:

4 a visual user interface for displaying the plurality of selectable  
5 components and a plurality of slots into which the plurality of  
6 selectable components can be placed;

7 a user intelligence communicatively coupled to the visual user interface  
8 for determining, by using a forward-looking rules table, the  
9 validity of placement of one of the plurality of selectable  
10 components into one of the plurality of slots; and

11 on a remote host device:

12 an inference engine communicatively coupled to the user intelligence, for  
13 storing rules and constraints governing placement of the plurality  
14 of selectable components, and for generating the forward-looking  
15 rules table.

1 13. The system of claim 12, wherein the client device further comprises a web  
2 browser which is communicatively coupled to the remote host device via a network  
3 service.

1        14. A computer program embodied in a tangible medium and capable of being  
2        executed by a computer for performing a method for visually configuring a product by  
3        placing a plurality of selectable components into a plurality of slots, comprising:

4                (a) initializing a configuration layout with proper state;  
5                (b) receiving a selection of one of the plurality of selectable objects, and of one of  
6                the plurality of slots in which the selected object may be placed;  
7                (c) providing visual feedback indicating a validity of the selections;  
8                (d) receiving a placement of the selected object;  
9                (e) receiving input regarding the placement from a remote inference engine;  
10               (f) updating the visual feedback as needed based on the received input; and  
11               (g) repeating steps (b) through (f) until no more selections are received.

1        15. A computer program embodied in a tangible medium and capable of being  
2        executed by a computer for performing a method for visually configuring a product by  
3        placing a plurality of selectable components into a plurality of slots, comprising:

4                (a) initializing a configuration layout with proper state;  
5                (b) receiving a selection of one of the plurality of selectable objects, and of one of  
6                the plurality of slots in which the selected object may be placed;  
7                (c) looking up a set of constraints on the placement of the selected object;  
8                (d) receiving a placement of the selected object;  
9                (e) receiving input regarding the placement from a remote inference engine;  
10               (f) implementing the received input;

11        (g) storing a new set of constraints based on the placement of the selected  
12        object; and  
13        (h) repeating steps (b) through (g) until no more selections are received.

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